

REMARKS

Reconsideration and withdrawal of the rejection and the allowance of all claims now pending in the above-identified patent application (*i.e.*, Claims 28-32, 35-37, 42 and 43-54) are respectfully requested in view of the foregoing amendments and the following remarks.

At the outset, it should be recalled that the presently claimed invention provides a packaging apparatus, which may be utilized for the packaging of various types of goods, such as foods, which involve a large number of processes (*e.g.*, feeding the packaging material or container, filling the container, closing the container and labeling the packaged goods) and which must be carefully coordinated with one another. Each of these process packaging steps, in turn, is subdivided into a large number of individual steps which are required to take place synchronously with one another.

The present invention for a packaging apparatus, as broadly claimed, is equipped with sensors, actuators and a drive system, having a servo motor, a central control unit and a system for data transmission. The actual values of the sensors, actuators and the drive system are recorded, in digital form, in each case, and transferred, with the use of a transmission protocol, via the data transmission system to the central control unit. The central control unit evaluates the data and determines setpoint values or control commands based upon measurements of actual values of the drive system taken for a plurality of cycles, which are transmitted, in digital form, from the control unit by the data transmission system to the actuator or drive system. The data transmission between the sen-

sors, actuators, drive system and the central control unit takes place with a transmission protocol that operates cyclically and with short cycle times, preferably in millisecond pulses.

In contrast to the prior art, the transmission protocol serves for synchronization of all sensors, actuators and drives, prepares the actual values and the determined setpoint data of all drives in each cycle, with the accuracy of the synchronization being in the microsecond range. The transmission protocol of the invention maintains essential information redundantly and eliminates errors in data transmission, preferably by the HDLC procedure.

As will be explained in greater detail hereinafter, nowhere in the prior art is such a novel and efficient packaging machine, useful for packaging containers, such as a multiplicity of food boxes and jars, for which the accuracy of the time synchronization is in the microsecond range, either disclosed or suggested and, further, that the currently pending set of claims are respectfully submitted to be in condition for allowance at this time.

By the present amendments, Applicants have amended independent Claim 28 to incorporate the indicated allowable subject matter of dependent Claim 39 and, further, to delete reference to “wireless” transmission means. Dependent Claims 33, 34 and 38-41 have been canceled, while dependent Claim 42 has been amended to delete reference to “said wireless transmission means.”

Additionally, Applicants have presented new independent Claim 43, which recites

the subject matter of prior dependent Claim 40, which the Examiner also indicated to be allowable over the prior art. Claim 43 and newly-entered dependent Claims 44-54, which dependent claims depend from independent Claim 43, do not make reference to “wireless” transmission means.

In light of the Examiner’s indicated allowability of the subject matter of prior dependent Claims 39 and 40, it is respectfully contended that independent Claims 28 and 43, which respectively incorporate the allowable subject matter of Claims 39 and 40, are submitted to now be allowable over the prior art.

The prior art rejections of the final Office Action, dated October 20, 2009, are respectfully contended to now be moot.

As part of the latest Office Action, the Examiner had rejected the subject matter of Applicants’ invention, as previously recited in Claims 28-42, as failing to comply with the enablement requirement of 35 U.S.C. §112, first paragraph, on the ground that Applicants’ *Specification* did not explain how to synchronize sensors, actuators and drive systems wirelessly in the microsecond range, and that such knowledge was not otherwise shown as being within the knowledge of the state of the art. As Applicants understand the Examiner’s non-enablement rejection, when considered in light of the Examiner’s reply to Applicants’ arguments concerning the enablement requirement, as previously filed on September 4, 2008, the “SERCOS Interface” publication that had been filed by Applicants was able to establish that the degree of synchronization, as recited in Applicants’ claims, has been known since at least August 1998, however, “wireless” synchronization

in the microsecond range could not be established by the SERCOS Interface publication.

As part of the instant claim amendments, Applicants have deleted from their claims that the transmission means of the present invention is mandated to be “wireless,” and consequently it is respectfully contended that the 35 U.S.C. §112, first paragraph, non-enablement rejection of record has been overcome, and should now be withdrawn, inasmuch as non-wireless synchronization, as taught by the SERCOS Interface publication does, in fact, establish that such synchronization in “the micro-second range” was known to the skilled artisan prior to the effective filing date of the instant patent application, thereby establishing the enablement of Applicants’ claims, as herein amended and as newly-entered.

In view of the foregoing, withdrawal of the Examiner’s 35 U.S.C. §112, first paragraph, non-enablement rejection of the most-recent final Office Action is respectfully requested.

Accompanying the present *Amendment in Response to the Final Office Action*, Applicant is filing a *Request for Continued Examination* and formal *Petition for a Three-Month Extension* of time for Response, and remitting all required fees. Accordingly, the “finality” of the last Office Action should be withdrawn and the foregoing amendments presented herein entered, and considered on their merits, as a matter of right.

Finally, upon entry of the present claim amendments, there will be a total of 21 claims pending in Applicants’ patent application. As a result, Applicants hereby remit

the additional claims fee of \$26 (small entity) for the pendency of one additional claim, beyond the twenty claims covered by the U.S. National Fees upon entry of Applicants' corresponding P.C.T. international application into the U.S. National Phase pursuant to 35 U.S.C. §371.

In light of the foregoing, it is respectfully contended that all claims now pending in the above-identified patent application (*i.e.*, Claims 28-32, 35-37, 42 and 43-54) recite a novel and efficient packaging machine, useful for packaging containers, such as a multiplicity of food boxes and jars, for which the accuracy of the time synchronization is in the microsecond range, which is patentably distinguishable over the prior art. Accord-

ingly, withdrawal of the outstanding rejection and the allowance of all claims now pending are respectfully requested and earnestly solicited.

Respectfully submitted,

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- Enc.: 1. Petition for Three-Month Extension of Time for Response;
2. *Request for Continued Examination*, pursuant to 37 C.F.R. §1.114;
3. EFT for \$986.00 (*Request for Continued Examination* + Three-Month Extension Fee + Additional Claims Fee for Pendency of 21 Claims).

The Commissioner for Patents is hereby authorized to charge the Deposit Account of Applicant's Attorney (*Account No. 19-0450*) for any fees or costs pertaining to the prosecution of the above-identified patent application, but which have not otherwise been provided for.